

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF OREGON

TROUT UNLIMITED, PACIFIC RIVERS
COUNCIL, PACIFIC COAST FEDERATION OF
FISHERMEN'S ASSOCIATIONS, INSTITUTE
FOR FISHERIES RESOURCES, NATIVE FISH
SOCIETY, OREGON NATURAL RESOURCES
COUNCIL, UMPQUA WATERSHEDS, and
COAST RANGE ASSOCIATION,

CV-06-1493-ST

FINDINGS AND
RECOMMENDATIONS

Plaintiffs,

v.

D. ROBERT LOHN, Northwest Regional
Administrator of National Marine Fisheries
Service, and CARLOS M. GUTIERREZ, Secretary
of Commerce, United States Department of
Commerce,

Defendants,

and

STATE OF OREGON, and ALSEA VALLEY
ALLIANCE,

Intervenor-Defendants.

STEWART, Magistrate Judge:

INTRODUCTION

Plaintiffs, Trout Unlimited, Pacific Rivers Council, Pacific Coast Federation of Fishermen’s Associations, Institute for Fisheries Resources, Native Fish Society, Oregon Natural Resources Council, Umpqua Watersheds, and Coast Range Association (collectively, “Trout Unlimited”), seek review of the determination by the National Marine Fisheries Service (“NMFS”) not to list Oregon Coast coho salmon under the Endangered Species Act, 16 USC §§ 1531-44 (“ESA”). NMFS is the federal government agency to which the Secretary of Commerce has delegated responsibility for administering the provisions of the ESA with regard to threatened and endangered marine species. *See* 16 USC § 1532(15); 50 CFR § 17.2.

NMFS has twice proposed to list the Oregon Coast coho salmon as a threatened species under the ESA, but has twice withdrawn the proposed listing at the urging of the State of Oregon. Initially, the State of Oregon developed the Oregon Coastal Salmon Restoration Initiative (“Oregon Plan”) to encourage voluntary conservation and some future regulatory changes. In reliance on the Oregon Plan, NMFS withdrew its proposed listing. This Court upheld a challenge to that withdrawal decision. *Oregon Natural Resources Council v. Daley*, 6 F Supp 2d 1139 (D Or 1998) (“*ONRC*”).

Heeding that decision, the NMFS then rejected the Oregon Plan as a basis to avoid an ESA listing and proposed listing the Oregon Coast coho as threatened. However, based in part on a new viability assessment prepared by the State of Oregon, it reversed course and withdrew its listing proposal. As a result, of 27 salmon and steelhead populations in the Pacific Northwest and California, the Oregon Coast coho is the only population not currently listed under the ESA.

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Trout Unlimited now challenges that withdrawal decision and requests: (1) a declaratory judgment that NMFS's determination not to list the Oregon Coast coho salmon is arbitrary, capricious, contrary to the best available science, and a violation of the ESA; (2) an order that NMFS issue a new final listing rule consistent with the ESA and the best available science rule within 60 days of the court's decision; (3) an award of reasonable attorneys' fees and costs; and (4) any additional relief the court deems just and proper.

Opposing Trout Unlimited are defendants D. Robert Lohn ("Lohn"), the Northwest regional director of NMFS, Carlos M. Gutierrez ("Gutierrez"), the Secretary of the United States Department of Commerce, both sued in their official capacity, as well as intervenor defendants the State of Oregon and Alsea Valley Alliance.

This action was originally filed in the United States District Court for the Western District of Washington and transferred to this court by Order of Judge R. Lesnik (docket # 24). This court has original jurisdiction pursuant to the citizen provision under the ESA, 16 USC § 1540(g)(1), as well as pursuant to 28 USC § 1331 under the Administrative Procedure Act, 5 USC § 706 ("APA").

Trout Unlimited has filed a Motion for Summary Judgment (docket # 45) and, in turn, all the defendants have filed Cross-Motions for Summary Judgment (docket ## 68, 77, 83). For the reasons below, Trout Unlimited's motion should be granted and defendants' cross-motions should be denied.

BACKGROUND

Congress enacted the ESA in 1973 "to provide a means whereby the ecosystems upon which endangered and threatened species may be conserved [and] to provide a program for the

conservation of such endangered species and threatened species.” 16 USC § 1531(b). The ESA’s protections apply only to species that are listed as threatened or endangered. A species is “endangered” when it “is in danger of extinction throughout all or a significant portion of its range” and is “threatened” when it is likely to become endangered within the foreseeable future. 16 USC § 1532 (6) & (20). Thus, a species is threatened if it is likely to qualify for endangered status within the foreseeable future.

The ESA charged the Secretary of Commerce (“Secretary”) with listing marine and anadromous species. The Secretary has delegated those responsibilities to NMFS. 50 CFR § 401.01(b). The ESA requires the Secretary to determine whether any species is endangered or threatened “because of any” of the following five factors:

- (A) the present or threatened destruction, modification, or curtailment of its habitat or range;
- (B) overutilization for commercial, recreational, scientific, or educational purposes;
- (C) disease or predation;
- (D) the inadequacy of existing regulatory mechanisms; or
- (E) other natural or manmade factors affecting its continued existence.

16 USC § 1533(a)(1).

This determination is to be made:

solely on the basis of the best scientific and commercial data available to [the Secretary] after conducting a review of the status of the species and after taking into account those efforts, if any, being made by a State or foreign nation . . . to protect such species, whether by predator control, protection of habitat and food supply, or other conservation practices, within any area under its jurisdiction or on the high seas.

16 USC § 1533(b)(1)(A).

In addition, the Secretary is required to consult with the affected states when considering whether to list a species as endangered or threatened and to “tak[e] into account those efforts . . .

being made by any State . . . to protect such species” under existing “conservation practices.” 16 USC § 1533(b)(5)(A)(i) & (ii).

Any interested person may petition to list a species as threatened or endangered. 16 USC § 1533(b)(3)(A). If the Secretary finds that the petitioned action may be warranted, he or she must “promptly commence a review of the status of the species concerned,” *id*, which typically entails convening a biological review team (“BRT”) of technical experts from several federal agencies to compile the best available science on the species’ status. Within 12 months after receiving the petition, the Secretary must make a finding that (1) the listing is or is not warranted, or (2) at the present time the listing is warranted but precluded. 16 USC § 1533(b)(3)(B).

If the Secretary finds that the listing is warranted, “a general notice and the complete text of a proposed regulation to implement [the decision]” is published in the *Federal Register*. 16 USC § 1533(b)(3)(B)(ii); *see also* 16 USC § 1533(b)(5)(A)(i) (general notice and text of the proposed regulation must be published not less than 90 days before the effective date of the regulation).

Within one year after publication of the proposed regulation, the Secretary must make a final decision whether to place the species on the endangered or threatened species list. 16 USC § 1533(b)(6)(A). The Secretary can invoke one six-month extension if “there is substantial disagreement regarding the sufficiency or accuracy of the available data relevant to the determination . . . concerned.” 16 USC § 1533(b)(6)(B)(i).

Once a species is listed, various safeguards prevent activities that will cause harm to members of the species or that will jeopardize the survival and recovery of the species. 16 USC

§§ 1536, 1538. The ESA's ultimate goal is recovery of listed species to the point that ESA protection is no longer necessary. 16 USC §§ 1531(b)-(c), 1532(3). Toward this end, NMFS must develop recovery plans for listed species that contain "objective, measurable criteria which, when met, would result in a determination . . . that the species be removed from the list." 16 USC § 1533(f)(1)(B)(ii).

STANDARD OF REVIEW

The ESA authorizes citizen suits against the Secretary alleging a failure to perform duties under the ESA's listing provision. 16 USC § 1540(g)(1)(C). Because the ESA specifies no standard of review of agency actions, the Ninth Circuit has borrowed the APA standard of review set out in 5 USC § 706(2), under which the agency's action is presumed to be valid. *ONRC*, 6 F Supp 2d at 1145 (citation omitted). Thus, the reviewing court may set aside an agency's decision only if it is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." *Pyramid Lake Paiute Tribe of Indians v. Dep't of the Navy*, 898 F2d 1410, 1414 (9th Cir 1990).

An agency's decision is arbitrary and capricious if it:

has relied on factors which Congress had not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.

O'Keefe's, Inc. v. United States Consumer Prod. Safety Comm'n, 92 F3d 940, 942 (9th Cir 1996), quoting *Motor Vehicle Mfrs. Ass'n of the United States, Inc. v. State Farm Mut. Auto Ins. Co.*, 463 US 29, 43 (1983).

Review under the APA “is generally limited to the Administrative Record compiled in support of the decision being challenged.” *Camp v. Pitts*, 411 US 138, 141-42 (1973). However, the reviewing court may consider material outside the administrative record “(1) if necessary to determine whether the agency considered all relevant factors and has explained its decision, (2) when the agency relied on documents not in the record, or (3) when . . . necessary to explain technical terms or complex subject matter.” *Southwest Ctr. for Biological Diversity v. United States Forest Serv.*, 100 F3d 1443, 1450 (9th Cir 1996) (internal citations and quotations marks omitted). Plaintiffs and the State of Oregon have submitted extra-record affidavits.

UNDISPUTED FACTS

I. Original Listing

A. 1995 Status Review and Proposal to List As Threatened

Oregon Coast coho salmon is a species of Pacific salmon which hatches in freshwater, migrates to the ocean to sexually mature, then migrates back to freshwater to spawn. After hatching in the spring, the juvenile coho salmon move during the summer into quiet areas with low flow, such as backwater pools, beaver ponds, dam pools, and side channels, where they remain throughout the winter. Coho smolts typically spend approximately 18 months in freshwater streams and rivers, migrate to the ocean from April to June, spend around 18 months in salt water, and re-enter freshwater from September to November when sexually mature to spawn. 69 Fed Reg 33,102, 33,109 (June 14, 2004) (Administrative Record (“AR”) 818).

In the early 1990s, scientific literature documented the extinction of more than a dozen coho stocks and the high risk of extinction facing a comparable number of remaining stocks.

See, e.g., AR 932 at 6 (September 1995); 60 Fed Reg 38,011, 38,018-19 (July 25, 1995) (AR 936). In response to petitions to list coho salmon, NMFS convened a BRT of scientists to conduct a West Coast status review of coho salmon. AR 932. The BRT divided coho salmon into several evolutionary significant units (“ESUs”), including one for the Oregon Coast coho, whose range stretched from Cape Blanco to the mouth of the Columbia River.¹ *Id* at v.

In assessing this ESU’s risk of extinction, the BRT reviewed the factors that NMFS has deemed critical in other listings. It found that the total number of individuals in a population, as well as the spatial and temporal distribution of adults is important in the assessment of risk. *Id* at 95. The BRT noted that coho returns historically approximated 1 to 1.4 million, but their abundance has declined to less than 10% of these historical levels. *Id* at vi-vii, 113; 60 Fed Reg 38,011, 38,019 & 38,021. The BRT also expressed “serious concern” about the coho’s low productivity with a decline in recruits per spawner ratios that are below replacement levels. AR 932 at 117; 60 Fed Reg 38,011, 38,021.² While the BRT noted that it had not attempted to identify the causes for the decline in recruits per spawner, it pointed out possible causes such as changes in ocean production and loss and degradation of freshwater habitat. AR 932 at 117. Based on these findings, the BRT concluded that the Oregon Coast coho salmon are “not at immediate risk of extinction but are likely to become endangered in the future if present trends continue.” AR 932 at vi-vii, 128-29.

¹ The ESA authorizes listings of distinct population segments (“DPSs”). 16 USC § 1532(16). ESUs constitute DPSs for salmon. *See* 56 Fed Reg 58,612, 58,618 (Nov. 20, 1991) (AR 934).

² “Replacement” assesses whether spawning salmon produce progeny that return as adults in sufficient numbers to “replace” the original spawners. A 1-to-1 ratio indicates replacement, while a number less than 1 indicates a population’s failure to replace itself. “Escapement” refers to the number of adult salmon returning to their natal streams to spawn. It is calculated after fisheries take their share of returning adults. “Total run size” measures escapement plus harvest. AR 901 at 313; 62 Fed Reg 24,588, 24,591.

Addressing the ESA's statutory listing factors, NMFS found the coho in decline due to "long-standing, human-induced conditions (e.g., harvest, habitat degradation and artificial propagation) that serve to exacerbate the negative effects of adverse environmental conditions (e.g., drought, poor ocean conditions)." 60 Fed Reg 38,011, 38,024.

B. 1997 Withdrawal of the Proposed Listing Based on the Oregon Plan

After NMFS proposed to list Oregon Coast coho salmon as threatened, Oregon adopted the Oregon Plan, which aimed to comprehensively address all the factors for the decline of the coho salmon and to hold all state agencies whose activities affect salmon accountable for coordinating their activities in a manner to conserve and restore the species and their habitat. While the Oregon Plan led to measures to reduce fishing and modify hatchery practices, it relied on voluntary measures, new forest practices regulations and nonspecific plans for future regulatory changes on state land and agricultural land to address habitat degradation. 62 Fed Reg 24,588, 24,603-05 (May 6, 1997) (AR 938).

NMFS found that the adoption of the Oregon Plan had not successfully halted or reversed the downward habitat trends and that improving freshwater habitat conditions was essential to coho survival. *Id* at 24,607. Nonetheless, NMFS withdrew the proposed listing in 1997 based on the predicted effects of future and voluntary conservation measures envisioned under the Oregon Plan. *Id* at 24,591, 24,607-08. NMFS found that the coho would not become endangered during the two-year time frame it allowed for Oregon to adopt improved habitat protections. *Id* at 24,607-08.

In *ORNC*, this Court found that the NMFS's withdrawal determination was arbitrary and capricious and remanded the matter back to NMFS for further consideration. More specifically,

this court concluded that NMFS had improperly focused on the risk of extinction over the next two years instead of the foreseeable future, as required by the ESA, and improperly relied on voluntary future conservation efforts.

C. 1998 Listing as Threatened

In response to *ONRC*, on August 10, 1998, NMFS listed Oregon Coast coho salmon as threatened. 63 Fed Reg 42,587 (Aug. 10, 1998) (AR 939). Based on the interim hatchery policy then in effect,³ NMFS included several hatchery populations in the ESU, but excluded those hatchery stocks from the ESA listing because they were not needed for immediate recovery efforts. *Id.*; 50 CFR § 227.4(o) (redesignated as 50 CFR § 223).

In *Alsea Valley Alliance v. Evans*, 161 F Supp 2d 1154, 1162 (D Or 2001), *appeal dismissed for lack of jurisdiction*, 358 F3d 1181 (9th Cir 2004) (“*Alsea*”), this court held that the listing was arbitrary and capricious and once again remanded the matter to NMFS for further consideration. The court found that the interim hatchery policy made improper distinctions within DPSs between hatchery spawned coho and naturally spawned coho.

II. New Listing Proposal

A. 2003 BRT Status Review

After *Alsea*, NMFS developed a new hatchery policy under which hatchery stocks determined to be part of a DPS will be considered in determining whether a DPS is threatened or endangered under the ESA, and convened a new BRT to conduct an updated status review of 27

³ See 58 Fed Reg 17,573 (April 5, 1993) (AR 935).

West Coast salmonid ESUs. *See* 70 Fed Reg 37,204 (June 28, 2005) (AR 1) (new hatchery listing policy);⁴ AR 916 (July 2003)⁵ (updated West Coast salmon status review).

The BRT evaluated the risk of extinction based on the performance of the naturally spawning populations in each of the ESUs under the assumption that present conditions would continue into the future. 69 Fed Reg 33,102, 33,110. To assess extinction risk, the BRT relied on a NMFS technical memorandum regarding Viable Salmonid Populations (“VSP”),⁶ which established four criteria to determine the viability of an ESU: abundance, growth rate/productivity, spatial structure, and diversity. AR 910 at xiii, 12-15. For each ESU being considered, the BRT members gave a numerical risk score to each of the four VSP criteria. AR 916 at 18-19. The BRT analysis of overall risk to the ESU used categories that correspond to definitions in the ESA: in danger of extinction, likely to become endangered, or neither. *Id.* at 23. Each BRT member distributed 10 likelihood points among the three ESU risk categories, reflecting his or her opinion on how likely that category correctly represents the true ESU status.

⁴ The new hatchery listing policy states that in delineating an ESU to be considered for listing, NMFS will identify all components of the ESU, including natural and hatchery populations. 70 Fed Reg at 37,215. Hatchery stocks with a level of genetic divergence relative to the local naturally spawning population(s) that is no more than what occurs within the ESU: (a) are considered part of the ESU; (b) will be considered in determining whether an ESU should be listed under the ESA; and (c) will be included in any listing of the ESU. *Id.*

⁵ In June 2005, the BRT released an expanded version of its initial July 2003 report with the same conclusions, but no new data. AR 901 (June 2005). It did not purport to analyze or comment upon the Oregon Draft Assessment released in January 2005 or the Final Assessment released in May 2005.

⁶ NMFS defines a viable salmonid population as “an independent population of any Pacific salmonid (genus *Oncorhynchus*) that has a negligible risk of extinction due to threats from demographic variation . . . , local environmental variation, and genetic diversity changes. . . over a 100-year time frame.” AR 910 at 2. NMFS primarily conducts viability analyses “at the scale of what are called independent populations, which will almost always be smaller than the scale of an ESU.” *Id.* The agency defines population performance measures “in terms of four key parameters: abundance, population growth rate, spatial structure, and diversity.” *Id.* It then “relate[s] performance and risks at the population scale to risks affecting the persistence of entire ESUs.” *Id.*

Id. This approach allowed each BRT member to divide his or her votes if the member was not entirely certain about the overall extinction risk faced by an ESU. *Id.*⁷

With respect to Oregon Coast coho salmon, the BRT noted that adult spawner abundance had increased in 2001-02 due to improved ocean conditions and reduced harvest, but raised concerns about a prior three-year period (1997-99) in which natural spawners did not replace themselves, the only three years of recruitment failure that have been observed since such data for Oregon Coast coho salmon was first collected in 1950. AR 901 at 324. The BRT concluded that “[w]hereas the recent increases in spawner escapement have resulted in long-term trends in spawners that are generally positive, the long-term trends in productivity in this ESU are still strongly negative.” *Id.* at 400.

A majority (73 votes or 56%) of the BRT votes were cast in the “likely to become endangered” category and a minority (57 votes of 44%) fell in the “not likely to become endangered” category for the Oregon Coast coho salmon ESU. *Id.* at 400-01 (Table 92). The BRT Report explained:

The majority of BRT members felt that to have a high degree of confidence that the ESU is healthy, high spawner escapements should be maintained for a number of years, and the freshwater habitat should demonstrate the capability of supporting high juvenile production from years of high spawner abundance. . . . The BRT was concerned that if the long-term decline in productivity reflects deteriorating conditions in freshwater habitat, this ESU could face very serious risks of local extinctions during the next cycle of poor ocean conditions. With the cushion provided by strong returns in the last 2-3 years, the BRT had much less concern about short-term risks associated with abundance.

⁷ For example, a BRT member certain that the ESU was not in the “at risk” category could assign all 10 points to that category, while a BRT member with less certainty about the ESU status could split the points across two or even three categories. AR 916 at 23.

AR 916, Part C at 90; AR 901, p. 400.

In short, the majority of the BRT felt that the recent increases in coho returns were most likely attributable to favorable ocean conditions and reduced harvest rates. As noted earlier in the BRT Report, “[i]t is far from certain that favorable marine conditions will continue and, with the current freshwater habitat conditions, the ability of [Oregon Coast] coho to survive another prolonged period of poor marine survival remains in doubt.” AR 901, p. 324.

In contrast, a “minority of BRT members felt that the large number of spawners in the last few years demonstrate that this ESU is not currently at significant risk of extinction or likely to become endangered” and, furthermore, “that the recent years of high escapement, following closely on the heels of the years of recruitment failure, demonstrate that populations in this ESU have the resilience to bounce back from years of depressed runs.” *Id* at 401

The BRT assessment did not include consideration of hatchery stocks included in ESUs nor an evaluation of the possible effects of protective efforts,⁸ which is one of the factors that NMFS must consider when deciding whether to list an ESU as endangered or threatened. 69 Fed Reg 33,102, 33,111; 16 USC § 1533(b)(1)(A). As a result, the BRT warned that its findings on the risk of extinction were “not be to be considered recommendations regarding listing” of identified ESUs as threatened or endangered species. 69 Fed Reg 33,102, 33,111.

B. 2004 Proposal to List Oregon Coast Coho

In June 2004, NMFS proposed to list as threatened 27 salmon and steelhead ESUs, including Oregon Coast coho salmon. 69 Fed Reg 33,102, 33,102. NMFS adopted the findings

⁸ The BRT Report explained that it did not assess the protective efforts because “[p]rotective efforts are taken into account in a separate process by the NMFS regional offices prior to making listing determinations.” AR 916 at 15.

of the BRT majority on the risk of extinction faced by the Oregon Coast coho and noted with concern that recent higher returns have varied throughout the ESU range and that some populations in small streams have not rebounded. The proposed listing noted the BRT's concern that "if the long-term decline in productivity reflects deteriorating conditions in freshwater habitat, this ESU could face very serious risks of local extirpations if ocean conditions reverted back to poor productivity conditions." *Id* at 33,132. As an example, NMFS noted that:

Approximately 30 percent of the ESU has suffered habitat fragmentation by culverts and thermal barriers, generating concerns about ESU spatial structure. Additionally, the lack of response to favorable ocean conditions for some populations in smaller streams, and the distinct patterns between north and south coast populations may indicate compromised connectivity among populations. The degradation of many lake habitats, and the resultant impacts on several lake populations in the Oregon Coast coho ESU, also poses risks to ESU diversity.

Id.

NMFS supplemented the BRT's findings with its own assessment of the role of hatcheries, and concluded that while providing a slight beneficial effect to ESU abundance, hatcheries have neutral or uncertain effects on ESU productivity, spatial structure, and diversity, and do not substantially reduce the extinction risk of the ESU. *Id* at 33,132-133, 33,161. After considering the hatcheries study and the BRT findings, NMFS concluded that Oregon Coast coho ESU "in-total" is likely to become endangered in the foreseeable future. *Id*; AR 917 at 30-31 (April 2004). However, NMFS indicated that it would consider Oregon's forthcoming analysis of the Oregon Plan in ascertaining whether the plan mitigated the extinction risk. 69 Fed Reg 33,102, 33,161.

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III. Decision to Withdraw Proposed Listing

A. Oregon's Draft Assessment

In January 2005, the State of Oregon released a draft titled Oregon Coastal Coho Assessment ("Draft Assessment") which evaluated the current viability of the Oregon Coast coho salmon ESU and the certainty of implementation and effectiveness of the Oregon Plan measures in addressing the factors responsible for the decline of the Oregon Coast coho ESU. *See* AR 833. The Draft Assessment concluded that: (1) the Oregon Coast coho ESU is "biologically viable, demonstrating sufficient abundance, productivity, distribution and diversity to avoid becoming endangered in the foreseeable future;" (2) the ESU is "supported by sufficient habitat to be sustainable through a future period of adverse ocean, drought and flood conditions similar to or slightly more adverse than the most recent period of poor survival conditions;" (3) "[p]rimary habitat related threats are being addressed through ongoing conservation efforts," which should "improve water quality and habitat supporting the ESU;" and (4) it is "unlikely that conditions currently supporting viability of the ESU could change so rapidly or dramatically as to preclude future, timely detection and protective action under the Oregon Plan . . . or the federal ESA." *Id* at Part 1, 5-6, 50-52.

B. Independent Multidisciplinary Science Team's Review of Oregon's Draft Assessment

In letters dated December 17, 2004 and February 1, 2005, the State of Oregon requested the Independent Multidisciplinary Science Team ("IMST"), a panel of scientists that provides scientific oversight of the Oregon Plan, to review the Draft Assessment "as it relates to the viability of Oregon Coast coho, the effectiveness of the State's conservation efforts (occurring primarily under the [Oregon Plan]), and NOAA Fisheries' final listing determination under the federal Endangered Species Act." AR 834, Cover Letter at 1. The IMST found that the Draft

Assessment had a number of strengths: (1) the criteria used (abundance, distribution, productivity, persistence, and diversity) were scientifically appropriate as consistent with the criteria used by the TRT⁹; (2) the “overall rigor, integration of disciplines and variables, and blending of modeling approaches,” the “clarity of presentation,” “readability of documents”; and (3) the “well-described” risks and uncertainties discussed in one section of the report enhanced the report’s credibility. *Id.*, Cover Letter at 2.

The State of Oregon also requested the IMST to recommend how the Draft Assessment could be strengthened. In response, the IMST report identified several areas that could be improved. Among others, it stated:

We feel that the report takes an unduly static view of the Oregon coastal landscape, and would be strengthened by inclusion of more future scenarios that integrate the potential consequences of multiple factors that affect fish populations (including ocean conditions, drought, fires, overall watershed conditions brought about by human population increases and land use change, and stream habitat conditions), and assess what would happen if individual trends detrimental to fish converged. We feel the report was overly dismissive of the likelihood that such scenarios might actually occur over the long term.

* * *

The conclusions of the *Viability Assessment* depend strongly on assumptions regarding a new “low abundance paradigm.” This perspective on coastal coho salmon has not been thoroughly reviewed or tested. The State should be cautious about making decisions that are based heavily on the new “low abundance paradigm” and should seek additional intensive review.

* * *

We find circularity in the argument that habitat must be adequate since viability was determined by the assessment to be not at risk. The circular reasoning can be framed as: the ESU is viable; hence the habitat must be adequate. Therefore, the habitat must be adequate because the ESU is

⁹ “TRT” is a group of scientists in NMFS’s Oregon and Northern California Coast Technical Recovery Team.

viable. This can lead to a false sense of security in determining if the ESU could be de-listed. A more accurate statement could be: the ESU might be viable, in spite of the fact that the habitat is quite marginal.

Id at 33-34 (internal emphasis excluded).

C. NMFS's Review of Oregon's Draft Assessment

On February 9, 2005, NMFS published a notice of availability of Oregon's Draft Assessment for public review and comment in the Federal Register and noted that information presented in the draft and final assessments would be considered in developing the final listing determination for the Oregon Coast coho ESU. *See* 70 Fed Reg 6,840 (Feb. 9, 2005). On February 28, 2005, Lohn sent the Draft Assessment to the Northwest Fisheries Science Center (the "NWFSC")¹⁰ and requested that it "analyze and comment on the State's draft coho viability criteria and ESU status assessment, and habitat-related portions of its draft PECE¹¹ analyses of Oregon Plan programs." AR 1636 at 1.

On March 15, 2005, the NWFSC sent Lohn two documents entitled: "Review of Oregon's 'Viability Criteria and Status Assessment of Oregon Coastal Coho'" ("NWFSC Viability Review") and "Review of the Oregon Plan and Coastal Coho Assessment-Habitat" ("NWFSC Habitat Review"). AR 920-02. The NWFSC Viability Review found that Oregon's Draft Assessment "represents an impressive amount of work on an important topic conducted under short time frames. The analyses reflect a thoughtful consideration of many important factors." *Id* (NWFSC Viability Review) at 3. However, the NWFSC also stated that "the report

¹⁰ The NWFSC employs approximately 300 scientists and staff whose mission is to conduct research and provide the scientific basis to meet NMFS's obligation to conserve and manage living marine resources and their habitat. *See* <http://www.nwfsc.noaa.gov/about/index.cfm> (last visited June 20, 2007).

¹¹ PECE is NOAA Fisheries' Policy for Evaluation of Conservation Efforts when Making Listing Decisions. 60 Fed Reg 15,100 (March 28, 2003).

has some important limitations, and the reviewers had many concerns about the data, methods and conclusions.” *Id.* The NWFSC Viability Review identified four specific concerns: (1) the Draft Assessment conclusion that “[Oregon Coast] coho salmon will consistently have very high productivity at very low spawner numbers” was an “overly optimistic interpretation of the data;” (2) the Draft Assessment should have a higher level of certainty of high productivity (offspring returning to their natal streams) at low abundance; (3) the Draft Assessment model for extinction risk and the analyses used to define the persistence criteria had flaws “serious enough to make the results unreliable” and problems in data measurement error and parameter estimation “tend to bias the model toward an overly optimistic conclusion about risk;” and (4) although the Draft Assessment analysis of population-level diversity focused on population size, it should have also considered any potential information about life history diversity, habitat diversity, and the evolutionary selective impacts of hatcheries and harvest. *Id.* Similarly, the NWFSC Habitat Review found that the Draft Assessment reflected an impressive effort, but also found that it had several limitations. One of its major concerns was that the synthesis reports on habitat were written in a narrative style, as opposed to a scientific format that cited data, so “there is little on which to assess whether the assertions and conclusions in the reports have a scientific basis.” AR 920-02 (NWFSC Habitat Review) at 2-3. NWFSC noted that the synthesis reports often failed to cite the technical reports developed to support the Oregon Plan, while citations to peer-reviewed scientific literature were almost non-existent. *Id.* at 2.

In addition, staff in NMFS’s Northwest Regional Office reviewed Oregon’s Draft Assessment and created a detailed list of comments. AR 920-01 (“NWR Review”). With respect to Oregon’s low abundance paradigm, the NWR Review stated:

Oregon's viability analysis is based on the hypothesis that coho populations are inherently resilient at low abundance. The NWFSC review posits that the empirical record is too short and the cause-and-effect relationship behind recent escapements is too poorly established to support Oregon's hypothesis. The chapter should discuss potential sources of bias in their analytical methods that have been described in the literature and explain why the selected analyses are reasonable. In addition, Oregon should address the possibility that future ocean conditions may be worse in intensity and longer in duration than those observed in the 1990s.

Id at 1.

The NWR Review questioned the assumption that there is a low risk of catastrophic events further compounding the effects of a return to poor ocean conditions and recommended that "Oregon run its model using ocean conditions worse in intensity and longer in duration than those observed in the 1990s." *Id* at 2.

On March 18, 2005, NMFS forwarded to the State of Oregon: (1) the NWFSC's review documents; (2) the NWR Review; and (3) the 15 public comments received after NMFS published Oregon's Draft Assessment in the Federal Register. AR 1644,¹² 1644-01, and 1644-02.

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D. Oregon's Final Assessment

On May 13, 2005, the State of Oregon issued its final Oregon Coastal Coho Assessment ("Final Assessment"). AR 928. The Final Assessment included a summary of, and response to,

¹² While AR 1644 referred to the public comments and mentioned three attachments, the attachments were not included in the electronically filed administrative record.

the comments received on the Draft Assessment, as well as several substantive changes intended to address concerns raised regarding the sufficiency and accuracy of the Draft Assessment. *Id.*

In the words of the NMFS, the Final Assessment concluded that:

(1) Oregon Coast coho populations exhibit strong density dependence conferring resilience in periods of low population abundance; (2) there are sufficient high quality habitats within the ESU to sustain productivity during periods of adverse environmental conditions; (3) current harvest regulations and hatchery reforms adequately address past harmful practices; (4) the ESU is resilient in long periods of poor ocean survival conditions; and (5) measures under the Oregon Plan make it unlikely that habitat conditions will be degraded further in the future.

71 Fed Reg 3033, 3036 (Jan. 19, 2006) (AR 794).

On the basis of these conclusions, the Final Assessment found that the ESU is viable, “with the component populations generally demonstrating sufficient abundance, productivity, distribution, and diversity to be sustained under the current and foreseeable range of future environmental conditions.” *Id.* at 3035-36.

At NMFS’s recommendation (*see* NWR Review, AR 920-01 at 1), Oregon conducted additional sensitivity analyses on its persistence model to include a scenario in which the marine survival conditions observed in the 1990s persisted for different lengths of time into the future.

The Final Assessment stated:

Generally, longer duration of adverse ocean conditions did not significantly decrease probability of persistence of coho populations. Modeling for conditions more adverse than were observed in the last 5 decades predicted lower probability of persistence for specific populations, with more populations at risk as several successively more adverse ocean survival rates were modeled. . . . The new analysis suggests that up to a 15% decrease in life-cycle survival may not affect the conclusion that the ESU meets viability criteria. Thus, Oregon continues to conclude that the ESU will remain viable under similar or slightly more adverse ocean conditions than had been observed during the last 5 decades.

AR 928, Part 1 (Synthesis) at 9-10.

On May 25, 2005, the NMFS Northwest Regional Office asked the NWFSC whether the Final Assessment addressed the concerns raised in its review of the Draft Assessment. AR 1655-01. In a memorandum dated August 15, 2005, the NWFSC explained the scope of its response: “We are not making any conclusion about the viability of these populations. We are reviewing the analyses presented in the report and evaluating how well the analyses support the conclusions reached in the report.” AR 1661-01 at 1. NWFSC then provided the following overall evaluation of the Final Assessment:

Many of our comments on the previous draft of this report have been addressed in the final version, but many have not. In fact, some of our most serious concerns about the potential for overestimation of population resilience remain. Because of these concerns, we continue to question the analytical support for Oregon’s conclusion that the ESU is viable. The ESU may be viable, but it is also possible that it is not viable. The case for viability, based on the presented analyses, is not as strong as suggested in the conclusions of this report.

Id.

The NWFSC Memorandum acknowledged that the Final Assessment had responded to some of its concerns by running additional scenarios through its population model, but the result was still questionable:

The sensitivity analyses conducted on the persistence model included a scenario in which the marine survival conditions observed in the 1990[s] persisted for different lengths of time into the future. The result was that the ESU remained viable even under these conditions where very low marine survival persisted for 24 years. This was a very useful analysis and provides some of the best support for the argument that the ESU is viable. However, as shown by the other sensitivity analyses, uncertainty in the estimates of productivity at low abundance can overwhelm this result.

Id at 4-5.

The NWFSC Memorandum continued to express concerns about the uncertainty of the Final Assessment’s “hypothesis, that coho will unfailingly have a high productivity every time the population is pushed to low abundance,” and noted that this is “a question that requires careful statistical consideration.” *Id* at 3.

E. NMFS’s Supplemental Analysis

NMFS held eight public hearings in the Pacific Northwest concerning the June 2004 West Coast salmon and steelhead proposed listing determinations, including the proposed determination for the Oregon Coast coho ESU. 69 Fed Reg 53,031 (Aug. 31, 2004); 69 Fed Reg 61,348 (Oct. 18, 2004). In response to the requests for information and comments on the June 2004 proposed listing determinations, NMFS received over 28,250 comments by fax, standard mail, and e-mail. 71 Fed Reg 3033, 3037.

On June 28, 2005, NMFS announced a six-month extension of the final listing determination for the Oregon Coast coho ESU pursuant to 16 USC § 1533(b)(6)(B)(I) to solicit additional data, finding that “there is substantial disagreement regarding the sufficiency or accuracy of the available data relevant to the determination . . . for the purposes of soliciting additional data.” 70 Fed Reg 37,217 (June 28, 2005). NMFS also announced a 30-day public comment period to solicit information regarding the validity of Oregon’s Final Assessment, particularly in light of the concerns raised with respect to the Draft Assessment. *Id.*

On August 22, 2005, Dr. John Stein, Deputy Director of the NWFSC, sent a memorandum to Lohn forwarding a draft report from the TRT on the recovery status of the Oregon Coast coho ESU (the “TRT Report”). AR 923. Based on a preliminary review, this

report indicated “with a moderate degree of uncertainty, that the ESU is persistent (persistence is relevant to Endangered status). Our evaluation of biological sustainability (relevant to Threatened status) based on current and recent past conditions shows a high degree of uncertainty with respect to the statement that the ESU is sustainable.” *Id.* Its preliminary results were subject to change upon further testing and review. *Id.*

Approximately five months later, Donna Darm (“Darm”), Assistant Regional Administrator for Protected Resources, NMFS Northwest Region, sent a memorandum (“Darm Memorandum”) to Lohn which analyzed “whether the Oregon Coast coho salmon ESU is likely to become an endangered species in the foreseeable future because of the present or threatened destruction, modification or curtailment of its habitat or range.” AR 1681 at 1. As to present habitat conditions, Darm stated: “Given the competing reasonable inferences [of the majority of BRT votes and the final Oregon Assessment], we cannot conclude that the ESU is likely to become endangered in the foreseeable [*sic*] because of the ‘present destruction, modification, or curtailment of its habitat or range.’” *Id.* at 2. Similarly, after comparing the findings of the BRT, Oregon’s Final Assessment, the TRT Report, an August 2005 review by NMFS regional staff, and a table prepared by a regional office biologist, she concluded: “[W]e believe there is insufficient evidence to support a conclusion that the Oregon Coast coho ESU is likely to become an endangered species because of the ‘threatened destruction, modification, or curtailment of its habitat or range.’” *Id.* at 5.

F. Withdrawal Decision

On January 19, 2006, NMFS published its Withdrawal Decision for the Oregon Coast coho ESU. The Withdrawal Decision explained NMFS's interpretation of the ESA's standard for listing a species as threatened under the ESA:

“[T]hreatened” is defined as “likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.” We interpret the term “likely” to mean that the best available information must indicate that a species is more likely than not to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

71 Fed Reg 3033, 3043.

Applying this “more likely than not” standard, the Withdrawal Decision concluded:

While acknowledging the uncertainties noted above, particularly regarding the adequacy of current habitat conditions to support ESU viability, we conclude from our review of information regarding factors affecting the species that the Oregon Coast coho ESU is not likely to become endangered in the foreseeable future as a consequence of: the loss or degradation of its habitat or curtailment of its range; overutilization; disease or predation; inadequacy of existing regulatory mechanisms; or other natural or human-made factors. Accordingly, we determine that the Oregon Coast coho ESU does not warrant listing under the ESA at this time and therefore withdraw the proposed listing.

Id at 3047.

NMFS listed the other 26 ESUs under the ESA. 70 Fed Reg 37,160-01 (June 28, 2005) (AR 950) (16 salmon ESUs); 71 Fed Reg 834 (Jan. 5, 2006) (10 steelhead ESUs).

FINDINGS

Trout Unlimited alleges that the NMFS violated the ESA by withdrawing its proposed listing of the Oregon Coast coho as threatened. According to Trout Unlimited, only two changes occurred in the 18 months between the proposed listing and the Withdrawal Decision that can explain why the NMFS reversed course: (1) adoption of a new legal standard which improperly

shifts the burden of proof to the species; (2) issuance of Oregon's Final Assessment which is predicated on the soundly criticized and fatally flawed "low abundance paradigm" and, therefore, violates the agency's best available science mandate.

After reviewing the reasons for the Withdrawal Decision, this court finds that while the legal standard applied is consistent with the ESA, NMFS did not properly apply that standard and violated the ESA by not relying on the best available science.

I. "More Likely Than Not" Standard

Trout Unlimited challenges the standard applied by the NMFS to list a species as "threatened" as contrary to the statutory language of "likely to become an endangered species." In response to Comment 19 in the Withdrawal Decision, NMFS rejected a "precautionary approach" as the appropriate statutory standard and interpreted "the word 'likely' to mean that the best available information must indicate that a species is more likely than not to become an endangered species within the foreseeable future throughout all or a significant portion of its range." 71 Fed Reg 3033, 3043, 3047. In effect, this listing standard requires a greater than 50% likelihood that a species will become endangered. Trout Unlimited contends that this is a new legal standard which is not entitled to deference under *Chevron v. Natural Res. Def. Council*, 467 US 837 (1984), and which cannot be reconciled with other ESA decisions.

A. Deference Under *Chevron*

Judicial review of an agency's interpretation of a statute is governed by the two-part formula announced in *Chevron*. A court reviewing an administrative interpretation of a statute must first ask "whether Congress has directly spoken to the precise question at issue." *Chevron*, 467 US at 842. If the statute is unambiguous, then the court "must give effect to the

unambiguously expressed intent of Congress” regardless of the agency’s view. *Id* at 843.

However, if the statute is silent or ambiguous with respect to the specific issue, then a court must defer to the agency’s interpretation unless that interpretation is unreasonable. *Id* at 843-44; *United States v. Mead Corp.*, 533 US 218, 229 (2001). “Levels of deference given to agency statutory interpretations vary with the circumstances, and as the level of deference that a court is required to give increases, so too does the tolerable marginal difference between a court and an agency’s interpretations.” *Hawaii ex. rel. Atty. Gen. v. Fed. Emergency Mgmt. Agency*, 294 F3d 1152, 1158 (9th Cir 2002). The precise degree of deference warranted depends on the statute and agency action at issue. *Mead*, 533 US at 227-31. Factors affecting the level of deference given to an agency’s interpretation include “the degree of the agency’s care, its consistency, formality, and relative expertness, and the persuasiveness of the agency’s position.” *Id* at 228 (citations and footnotes omitted).

The ESA defines “threatened” as “likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.” 16 USC §1532(20). The first step under *Chevron* is to determine whether the word “likely” is ambiguous. The word “likely” clearly means something less than 100% certain, but how much less is not as clear. For example, it can mean considerable certainty, a probability, or some other degree of expectation. See MERRIAM WEBSTER ONLINE (<http://www.m-w.com/dictionary/likely>) (“having a high probability of occurring or being true : very probable <rain is *likely* today>”); CAMBRIDGE DICTIONARY OF AMERICAN ENGLISH (http://dictionary.cambridge.org/define.asp?key=likely*1+0&dict=A (“expected to happen; probable”); OXFORD ENGLISH DICTIONARY (http://dictionary.oed.com/cgi/entry/50133234/50133234se11?query_type=word&queryword=li

kely&first=1&max_to_show=10&sort_type=alpha&result_place=2&search_id=1qnn-ESuuBa-8212&hilite=50133234se11) (“Probably, in all probability.” Now chiefly *most likely, very likely* otherwise rare exc. *Sc. dial.*, or (freq.) *N. Amer.*). Given this ambiguity, this court must determine what level of deference to give the NMFS’s interpretation.

Under the ESA, the NMFS is required to publish guidelines on “criteria for making the findings” and “provide to the public notice of, and opportunity to submit written comments on, any guideline.” 16 USC § 1533(h)(2). However, the NMFS did not announce its “more likely than not” interpretation by issuing a full-dress guideline and adopting it as a policy pursuant to the formal notice-and-comment procedures of 16 USC § 1533(h). *See* VSP Policy (AR 910), Appendix, p. 33 (noting that neither NMFS nor the USFWS has defined “likely to become” in a policy context); *Northwest Ecosystem Alliance v. U. S. Fish & Wildlife*, 475 F3d 1136, 1142 (9th Cir 2007) (giving *Chevron* deference to a DPS policy that a population be significant to its taxon because it “emerged” through the “robust process” of public notice and comment). Instead, NMFS first announced this standard in the Withdrawal Decision which evolved as a result of litigation and public comments with respect to a particular salmon species.

The fact that an agency reaches its interpretation “through means less formal than ‘notice and comment’ rulemaking does not automatically deprive that interpretation of the judicial deference otherwise due.” *Barnhart v. Walton*, 535 US 212, 221 (2002) (citation omitted); *also see Davis v. EPA*, 348 F3d 772, 780 n5 (9th Cir 2003). On the other hand, deference is denied “to agency litigating positions that are wholly unsupported by regulations, rulings, or administrative practice” because the “deliberateness of such positions, if not indeed their

authoritativeness, is suspect.” *Smiley v. Citibank (S. D.), N. A.*, 517 US 735, 741 (1996), citing *Bowen v. Georgetown Univ. Hosp.*, 488 US 204, 212 (1988).

It is noteworthy that the NMFS did not apply its interpretation of “likely” in the proposed listing for the Oregon Coast coho or in the proposed or final listings of the other 26 salmon species. This standard had not been announced when the BRT conducted its review. The NMFS gave no prior notice and did not subject its interpretation to public comment or scientific scrutiny. Instead, this standard appeared for the first time in the Withdrawal Decision in response to a public comment without any explanation as to how it was reached. *See* AR 1677R (December 20, 2005 email about the need to discuss the definition of “likely”). Accordingly, this court finds that the NMFS’s interpretation is not entitled to the maximum level of deference under *Chevron*.

Even if NMFS’s interpretation is not entitled to *Chevron* deference, it is nonetheless entitled to “respect” under *Skidmore v. Swift & Co.*, 323 US 134, 140 (1944). “[T]he agency’s views still ‘constitute a body of experience and informed judgment to which courts and litigants may properly resort for guidance.’” *Northwest Ecosystem Alliance*, 475 F3d at 1141, quoting *Skidmore*, 323 US at 140.

B. Appropriate Statutory Standard

Trout Unlimited argues that the “more likely than not” (or greater than 50%) standard is contrary to the ESA for two reasons: (1) according to the best available science mandate, the NMFS must give the benefit of the doubt to the species; and (2) the new legal standard is inconsistent with agency policies and the feedback received from peer reviewers. For the reasons that follow, neither argument is persuasive.

1. Giving Benefit of the Doubt to the Species

First, quoting *Conner v. Burford*, 848 F2d 1441, 1454 (9th Cir 1988), *cert denied*, 489 US 1012 (1989), Trout Unlimited contends that the “best available science” mandate of the ESA requires the NMFS to “give the benefit of the doubt to the species.” However, *Conner* did not address a listing decision, but instead involved a jeopardy analysis on already listed species under Section 7 of the ESA, 16 USC § 1536(a)(2). Section 7 of the ESA requires each federal agency to ensure that any action taken “is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification” of designated critical habitat. In *Conner*, an agency issued oil and gas leases without addressing in its biological opinion the impact of post-lease activities on species that had already been listed. The agency contended that it lacked sufficient data on post-leasing oil and gas activities to prepare comprehensive biological opinions. The Ninth Circuit disagreed, holding that the agency improperly ignored extensive information that it already had about the behavior and habitats of the listed species in the areas covered by the leases. The court explained that an agency must use the best available information in accordance with Congress’s intent to “give the benefit of the doubt to the species.” *Id* at 1454, quoting HR Conf Rep No 96-967, 96th Conf, 1st Sess 12, *reprinted in* 1979 USCCAN 2572, 2576.

While *Conner* concerned an agency’s failure to use the best available information in the context of evaluating the impact of activities on already listed species, this case, in contrast, concerns whether, under Section 4 of the ESA, a species should be listed in the first instance. Under Section 4, the default position for all species is that they are not protected under the ESA. A species receives the protections of the ESA only when it is added to the list of threatened

species after an affirmative determination that it is “likely to become endangered within the foreseeable future.” Although an agency must still use the best available science to make that determination, *Conner* cannot be read to require an agency to “give the benefit of the doubt to the species” under Section 4 if the data is uncertain or inconclusive. Such a reading would require listing a species as threatened if there is any possibility of it becoming endangered in the foreseeable future. This would result in all or nearly all species being listed as threatened. Instead, Congress vested the NMFS with discretion to make listing decisions based on consideration of the relevant statutory factors using the best scientific information available.

Trout Unlimited contends that in *Brower v. Evans*, 257 F3d 1058, 1071 (9th Cir 2001), the Ninth Circuit adopted the “benefit of the doubt” approach to resolving scientific uncertainty about the future of a species. *Brower* construed the “best available science” standard under the International Dolphin Conservation Program Act, Pub. L. No. 105-42, 111 Stat. 1122 (“IDCPA”), to evaluate a change in the dolphin-safe label standard. In that regard, it looked for guidance to the analogous ESA and cited *Conner* for the conclusion that the agency “cannot use insufficient evidence as an excuse for failing to comply with the statutory requirement.” *Id* at 1071. However, the situation in *Brower* was similar to Section 7 of the ESA in that the species in question, the dolphin, was already protected under federal law. As explained in a later challenge to the remand decision following *Brower*, the insufficiency of the data should be resolved in favor of the species because “Congress’s intent was to change the status quo labeling requirement only if the fishery was not impacting the dolphin stocks.” *Earth Island Inst. v. Hogarth*, 484 F3d 1123, 1129 (9th Cir 2007). Citing *Brower*, the court rejected the notion that inconclusive evidence may justify a reduction in existing protections for a species. Here, in

contrast, the issue is whether inconclusive evidence may be used to initiate protections for a species.

Trout Unlimited also relies on *Defenders of Wildlife v. Babbitt*, 958 F Supp 670, 679-80 (DDC 1997) and *Center for Biological Diversity v. Lohn*, 296 F Supp2d 1223, 1236-40 (WD Wash 2003), *vacated and remanded on other grounds*, 483 F3d 984 (9th Cir 2007), which cited *Conner* in the Section 4 context for the proposition that Congress intended to “give the benefit of the doubt to the species.” However, they did so without any explanation or analysis of the difference between Section 4 and Section 7 of the ESA. Furthermore, neither of these cases actually applied the “benefit of the doubt” standard. Instead, they held that under the mandate to use the best available science, the agency improperly ignored evidence after concluding it fell “short of absolute scientific certainty.” *Northwest Ecosystem Alliance*, 475 F3d at 1147 (citing both cases). Therefore, they are not persuasive authority as to the applicable standard for listing a species under Section 4.

2. Inconsistent With Policies and Input

Second, Trout Unlimited argues that the “more likely than not” standard is at odds with the VSP Policy, the NMFS’s prior findings, and the input received from the BRT, NWFSC, TRT, and IMST. For example, it cites the BRT and VSP Policy definition of a viable ESU as having “a negligible risk (over a time scale of 100 years) of going extinct” which the proposed listing adopted. 69 Fed Reg 33,102, 33,111; AR 910 at xiii.¹³

¹³ Trout Unlimited also refers to two other exhibits not in the administrative record. However, it has not attempted to invoke any of the exceptions to the rule that judicial review of agency actions is strictly limited to the administrative record. *Lands Council v. Powell*, 395 F3d 1019, 1029-30 (9th Cir 2005) (citation omitted). Therefore, the court will not consider those exhibits.

However, a risk of extinction must not be confused with the standard for listing a species as threatened. To be threatened, a species must be “likely to become an endangered species.” A species is “endangered” if it is in “danger of extinction throughout all or a significant portion of its range.” 16 USC § 1532(6). In other words, for a species to be listed as “threatened,” it must “likely” be in “danger of extinction” in the foreseeable future. A “danger of extinction” certainly does not mean a “high rate of extinction.” *See Western Watersheds Project v. Foss*, 2005 WL 2002473, * 17 (D Id, Aug. 19, 2005) (“By using the standard, ‘high rate of extinction’ in the ‘foreseeable future,’ the FWS conflates the terms ‘endangered’ and ‘threatened,’ and creates a higher standard for a ‘threatened’ species than Congress intended.”). Instead, the required danger level for extinction necessarily depends on the applicable scientific viability assessments for the particular species. For example, a scientific viability assessment might conclude that a species is viable if it has a 5% risk of going extinct within 100 years. Under that threshold, a population would need a 95% likelihood of achieving the target population in order to be considered viable and not in “danger of extinction.” The NMFS would then have to determine how likely such a “danger of extinction” will occur.

If the NMFS had adopted a standard that a threatened species must be “more likely than not” (at least 50%) at risk of actually becoming extinct in the foreseeable future, then it would have announced a new standard contrary to the statute and its own policies and scientific viability assessments. However, the Withdrawal Decision does not say that. Instead it states that the standard is “more likely than not *to become an endangered species* within the foreseeable future.” So stated, this standard requires at least a 50% chance of being in “danger of extinction,” as opposed to at least a 50% risk of going extinct. This is consistent with the VSP

Memo which endorsed one scientist's view that "a reasonable interpretation of a 'likely' event is one that has at least a 50% chance of occurring." AR 910 at 33 (citing a 1991 NOAA technical memorandum by G.G. Thompson). Provided that this standard is not superimposed onto the viability assessment, it does not raise the burden of proof for listing a species as threatened.

Not giving the benefit of the doubt to the species under Section 4 should not be interpreted as throwing a precautionary approach to the wind. The APA standard explicitly incorporates many statutory constraints, and listing decisions under the EPA must be made solely on the basis of the best available science which requires far less than conclusive evidence.

Congress repeatedly explained that it intended to require the FWS to take preventive measure *before* a species is 'conclusively' headed for extinction. The purpose of creating a separate designation for species which are "threatened," in addition to species which are "endangered," was to try to "regulate these animals before the danger becomes imminent while long-range action is begun." The legislative history of the ESA contains ample expressions of Congressional intent that preventive action to protect species be taken sooner rather than later.

Defenders of Wildlife, 958 F Supp at 680 (emphasis in original; citations omitted).

In sum, this court is not persuaded that the NMFS's interpretation of the statutory standard is wrong. Instead, the critical issue is *how* it applied that standard in this case.

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C. Application of Standard

Although the Withdrawal Decision announced the "more likely than not" standard, it nowhere explained how this standard altered the NMFS's findings based on the scientific record. Instead, it appears to be offered to support its conclusion that when faced with competing inferences, resulting in uncertainty, a listing is not warranted. If the best available science truly

reveals a 50-50 chance or less that a species will become endangered in the foreseeable future, then a listing as threatened may not be warranted. However, as explained below, that is not the case here.

II. Best Available Science

Next, Trout Unlimited argues that NMFS violated the “best available science” mandate by withdrawing the proposed listing because: (1) it mainly relied on Oregon’s Final Assessment, which is predicated upon the “low abundance paradigm,” a heavily criticized theory lacking scientific support; and (2) NMFS never disavowed the findings or rationale of the BRT majority position, never reconciled its Withdrawal Decision with the TRT’s findings, and erred by relying on the BRT minority position. Defendants disagree, contending that NMFS did apply the best available science because: (1) Oregon’s Final Assessment was not dependent upon the “low abundance paradigm;” and (2) since 2003, every scientific conclusion in the record supports the Withdrawal Decision.

A. Legal Standard

Under 15 USC § 1533(b)(1)(A), an agency must discharge its ESA duties, including listing determinations, “solely on the basis of the best scientific and commercial data available . . . after conducting a review of the status of the species and after taking into account those efforts, if any, being made by any State or foreign nation, or any political subdivision of a State or foreign nation, to protect such species.” The best available science requirement “merely prohibits [an agency] from disregarding available scientific evidence that is in some way better than the evidence [the agency] relies on.” *Kern Co. Farm Bureau v. Allen*, 450 F3d 1072, 1080 (9th Cir 2006) (citation omitted). In other words, the agency “cannot ignore available biological

information.” *Id* at 1080-81, citing *Conner*, 848 F2d at 1454. On the other hand, “absent superior data . . . occasional imperfections do not violate § 1533(b)(1)(a).” *Allen*, 450 F3d at 1081, citing *Building Indus. Ass’n of Superior Cal. v. Norton*, 247 F3d 1241, 1246 (DC Cir 2001), *cert denied*, 534 US 1108 (2002). The statute contains no requirement of absolute scientific certainty to justify listing a species, but rather requires application of the best science available. *Defenders of Wildlife*, 958 F Supp at 679-81.

B. Oregon’s Final Assessment

NMFS adopted the findings of Oregon’s Final Assessment which concluded that the Oregon Coast coho salmon ESU is currently viable, with sufficient *abundance, productivity, distribution*, and *diversity* to be sustained under the current and foreseeable range of future environmental conditions. 71 Fed Reg 3033, 3035-36 (emphasis added).

Trout Unlimited contends that the basis for Oregon’s viability conclusion is the “low abundance paradigm,” which was heavily criticized as flawed by all peer reviews. Defendants believe this issue is moot since the Final Assessment abandoned the “low abundance paradigm” developed in the Draft Assessment. As explained below, whether or not the Final Assessment successfully divorced viability from the low abundance paradigm, it continued to rely on the problematic assumption that Oregon Coast coho are inherently resilient at low abundance.

1. Low Abundance Paradigm in Oregon’s Draft Assessment

The Draft Assessment noted that despite previous speculation “that most coho populations, when faced with such poor ocean conditions and low abundance [1990-1996], would invariably decline,” resulting in extirpation of most populations if conditions lasted for a sufficient period of time, “[t]he actual performance of Oregon Coast coho populations during

this period suggests that this paradigm was wrong. Indeed, rather than continued decline, *populations reached a low level of abundance and then stabilized at a new equilibrium.*” AR 833 at 12 (emphasis added). On the basis of this seven year period, Oregon articulated the low abundance paradigm, a hypothesis that “coho populations are inherently resilient at low level of abundance due to *strong productivity compensation at low spawner density.*” 71 Fed Reg 3033, 3039 (emphasis added). Given this inherent resilience, Oregon believed that Oregon Coast coho do not need greater abundance or more or better functioning habitat in order to be viable.

The peer reviews were quite critical of the low abundance paradigm. The NWFSC stated that the Draft Assessment’s conclusions were overly optimistic, that its hypotheticals were weak, and that the seven years of data was too short a time period. AR 920-01 at 5. It also criticized the low abundance paradigm for disregarding widely accepted scientific principles that treat low abundance as a serious extinction risk. “The premise that extinction probability does not depend on initial abundance simply does not pass the red face test – too much theoretical and empirical data suggest otherwise for a wide variety of species.” AR 920-02, Viability Criteria at 9. The IMST reached the same conclusions that “the empirical record is too short and the cause-and-effect relationship behind recent escapements [is] too poorly established to support Oregon’s hypothesis”¹⁴ (AR 834, p. 5), and that the “conclusions of the *Viability Assessment* depend strongly on assumptions regarding a new ‘low abundance paradigm.’ This perspective on coastal coho salmon has not been thoroughly reviewed and tested. The State should be cautious

¹⁴ While the IMST Cover Letter stated that “[a]s a general conclusion, the IMST believes that the assumptions and analyses underpinning the State’s Coho Assessment are valid” (AR 834, Cover Letter at 5), this optimistic conclusion is not consistent with the actual IMST report. Moreover, the IMST faulted Oregon for relying on a single model when many other well-tested models are available, and it urged Oregon to incorporate the TRT’s models and conclusions into its final report. *Id.* at 3-4.

about making decisions that are based heavily on the new ‘low abundance paradigm’ and should seek additional intensive review.” *Id* at 34. The NWR adopted the NWFSC’s criticism:

Oregon’s viability analysis is based on the hypothesis that coho populations are inherently resilient at low abundance. The NWFSC review posits that the empirical record is too short and the cause-and-effect relationship behind recent escapements is too poorly established to support Oregon’s hypothesis. The chapter should discuss potential sources of bias in their analytical methods that have been described in the literature and explain why the selected analyses are reasonable.

AR 920-01.

As noted in the response to Comment 7, the Withdrawal Decision incorporated these criticisms of the low abundance paradigm:

The data presented by Oregon in support of the low abundance paradigm suffer from low sample size, potentially substantial measurement error, and the fact that Oregon did not adequately analyze whether increased productivity is attributable to a strong compensatory response or is better explained by interannual variability. . . . We believe that single data points are not very informative with regard to assessing extinction risk. The more relevant consideration is whether mean productivity is at or above replacement over the long term through periods of favorable and unfavorable environmental conditions.

71 Fed Reg 3033, 3039.

Oregon’s low abundance paradigm not only failed to conform with the scientific peer reviews, but also with the position previously taken by the NMFS recognizing a correlation between low population abundance and extinction risk in other salmon listing determinations. *See* 70 Fed Reg 37,160, 37,172 (low abundance of Lower Columbia coho poses significant extinction risks); 60 Fed Reg 38,011, 38,020-21 (population decline was a factor in listing Southern Oregon/Northern California coho as threatened). In its initial proposed listing in 1995, NMFS determined that the Oregon Coast coho salmon was threatened, in part, due to decreased

abundance and the lack of sufficient freshwater habitat to support greater abundance. 63 Fed Reg 42,587; 60 Fed Reg 38,011, 38,021. While that conclusion was reached before the increase in abundance of spawners registered from 2001 through 2004, NMFS's updated status review and the 2004 proposed listing both applied the agency's VSP Policy which deemed low abundance to be an extinction risk factor. AR 916 at 18-20; AR 901 at 14-15; 69 Fed Reg 33,102, 33,110. The VSP Policy, which is drawn from the conservation biology literature, identifies abundance as a key factor in determining the risk of extinction because small populations often lack the demographic capacity and genetic and ecological diversity to survive or to recover from catastrophic events. AR 910 at 12-15. The BRT found that abundance was a critical viability factor. AR 916 at 15-16, 18. Moreover, the proposed listing acknowledged that ESUs with lower populations "have a greater risk of becoming extinct due to catastrophic events." 69 Fed Reg 33,102, 33,110.

2. ESU Viability Conclusion in Oregon's Final Assessment

In the words of the Withdrawal Decision, Oregon's Final Assessment concluded that the Oregon Coast coho ESU is viable largely on the basis of the following findings:

(1) the Oregon Coast coho populations exhibit strong density dependence conferring resilience in periods of low population abundance; (2) there are sufficient high quality habitats within the ESU to sustain productivity during periods of adverse environmental conditions; (3) current harvest regulations and hatchery reforms adequately address past harmful practices; (4) the ESU is resilient in long periods of poor ocean survival conditions; and (5) measures under the Oregon Plan make it unlikely that habitat conditions will be degraded further in the future.

71 Fed Reg 3033, 3036.

The parties disagree whether the Final Assessment reached this viability conclusion based on the low abundance paradigm. As explained below, even if the low abundance

paradigm is disregarded, Oregon's viability conclusion was based on findings that Oregon Coast coho are inherently resilient "in periods of low population abundance" and "in long periods of poor ocean survival conditions." *Id.* This inherent resilience, in turn, rests on questionable productivity estimates and does not represent the best available science.

a. Resilience During Low Population Abundance and During Long Periods of Poor Ocean Conditions

The only peer review of the Final Assessment was conducted by the NWFSC.¹⁵ Oregon ran persistence models with both density-dependent and density-independent assumptions to prove that coho are inherently resilient. Density dependence refers to the assumption that salmon populations are *more* productive, *i.e.*, each coho produces a greater number of viable offspring when populations are small since the offspring then have little competition for available habitat. Oregon's density-dependent model was strongly criticized by the NWFSC:

[Despite Oregon's hypothesis], it still remains an *open question* exactly how density dependence operates and, in particular, *what is the productivity of the populations at low abundance* (*i.e.*, is the resilience assumed in the models supported by the data?).¹⁶ Simply recognizing that coho populations are affected by density dependent processes does not automatically imply that the populations will have an exceptionally high productivity whenever the population gets low.

AR 1661-01 at 3 (emphasis added).

Oregon also developed a "density independent model" which purportedly removed the assumption that coho have *increased* productivity at low numbers. NWFSC found that the

¹⁵ Defendants correctly point out that NWFSC did not form any conclusion about the viability of the ESU. AR 1661-01 at 1. However, NWFSC's findings are useful because the agency scientists reviewed "the analyses presented in the [Final Assessment] and [evaluated] how well these analyses support the conclusions reached in the [Final Assessment]." *Id.*

¹⁶ To illustrate its criticism, NWFSC pointed out that while Oregon cited examples from several streams in specific brood years in support of the hypothesis that Oregon Coast coho have high productivity at low abundance, it is possible to cite examples from other brood years for the same streams that show an opposite effect. AR 1661-01 at 4-5.

“density independent model” is a misnomer because it is not a “density independent risk model” and should be categorized as a “hockey stick model,” *i.e.* one which assumes that at low to medium abundance, coho productivity is assumed to remain constant but then decreases as abundance reaches high numbers over the carrying capacity of the ecosystem (like an inverted hockey stick). *Id* at 4. NWFSC found that while this hockey stick model “provides a useful analysis that lends more support for the hypothesis that the ESU is viable,” “the issue of uncertainty and potential bias in the productivity estimates where [*sic*] still not addressed.” *Id.* In other words, the assumption that even at low abundance, coho would stabilize at a viable level during poor ocean conditions was based on uncertain, potentially biased estimates. NWFSC did not believe that the Final Assessment had properly dealt with “the potential overestimate of recruits per spawner issue.” *Id.*

The Withdrawal Decision noted that the Final Assessment included an “alternate recruitment model to test the sensitivity of the model results to the low abundance paradigm” which “did not substantially alter its overall status determination for the ESU.” 71 Fed Reg 3033, 3039. Although noting that “Oregon’s additional sensitivity analysis lends support to a conclusion that the ESU is currently viable, even if the low abundance paradigm is insufficiently supported,” it also recognized that “the small samples sizes and the effects of measurement error continue to contribute to uncertainty in its assessment.” *Id.*

The Final Assessment used a criterion to measure productivity expressed as average recruits per spawner, that is, whether adults will produce enough offspring that will survive as adults. NWFSC noted that the productivity criterion was essentially the same as in the Draft Assessment which would allow 50% of the population to fall below the threshold and decline

when at low abundance. It found that this criterion “is not very risk averse and does not take uncertainty into account.” AR 1661-01 at 5. This is the same criterion that NWFSC had previously cautioned would make sustainability a “coin-toss.” AR 920-02 at 11. This concern is expressed in Comment 11 of the Withdrawal Decision by a commenter who recommended “that a higher level of certainty was advisable for the productivity threshold, given that the resilient productivity of low abundance is a key component of Oregon’s assessment (*i.e.*, Oregon’s low abundance paradigm).” 71 Fed Reg 3033, 3040. NMFS responded to this comment by agreeing “that the productivity thresholds should require a higher level of certainty that the average recruits per spawner at low population abundance exceeds replacement. A population exactly meeting Oregon’s viability thresholds would be at a very low level of abundance, susceptible to stochastic and depensatory¹⁷ demographic processes, and would have a 50 percent chance that its productivity is below replacement.” *Id* at 3040-41. NMFS also found that “the productivity threshold does not take into account the statistical uncertainty in estimating the number of recruits per spawner, so the confidence with which one can conclude that a given population is above the productivity threshold is unspecified.” *Id* at 3041.

While the Final Assessment ran additional models accounting for poor marine survival conditions that persisted for 24 years, which provided “some of the best support for the argument

¹⁷ Depensation occurs when the number of offspring per adult increases with decreasing abundance or density of adults and typically occurs at very small population abundances. Plaintiff’s Exhibit 4, Co-Managers’ Draft - Biological Recovery Criteria for the Oregon Coast Coho Salmon [ESU] (Jan 20, 2006), p. 38. Although this exhibit is not in the administrative record, it may be cited to “explain technical terms.” *Southwest Ctr. for Biological Diversity*, 100 F3d at 1450.

that the ESU is viable,” NWFSC warned that “uncertainty in the estimates of productivity at low abundance can overwhelm this result.” *Id* at 5.¹⁸

Oregon continued to discount abundance as a viability factor by noting that “population abundance does not appear to be a very good predictor of extinction risk for coho populations” and that “spawner abundance has a minor impact on extinction risk, unless the abundance is at exceptionally low levels.” AR 928, Part 2 (Viability Criteria and Status Assessment of Oregon Coast Coho) at 20. NWFSC criticized this finding as “the result of a model whose results probably depend heavily on assumptions about behavior at levels for which there are few or no data.” AR 1661-01 at 2. NWFSC also found that the Final Assessment’s level of five fish per mile as a measure for abundance was “more like a quasi-extinction threshold than anything related to viability. It may be misleading to call it a viability criterion.” *Id*.

After reviewing Oregon’s findings on resilience at low abundance and/or during poor ocean conditions, NWFSC concluded:

some of our most serious concerns *about the potential for overestimation of population resilience* remain. Because of these concerns, we continue to question the analytical support for Oregon’s conclusions that the ESU is viable. The ESU may be viable, but it is also possible that it is not viable. The case for viability, based on the presented analyses, is not as strong as suggested in the conclusions of this report.

AR 1661-01 at 1 (emphasis added).

Thus, even removing the low abundance paradigm from the equation, the hockey stick model in the Final Assessment suffered from uncertainty and potential bias in the productivity

¹⁸ The 24-year time line was chosen because it was determined that a period of poor ocean conditions over 24 years was “too high a stress on many of the population and they dropped into the non-viable category (*i.e.* probability of extinction > 0.05).” AR 928, Part 2 (Viability Criteria and Status Assessment of Oregon Coast Coho) at 58. Without explanation, NWFSC appeared to accept a period of 24 years as constituting the “foreseeable future.”

estimates. Not only did NWFSC question the productivity estimates, but it also questioned the core assumption that the ESU is resilient and, therefore, viable. Thus, Oregon's core assumption that coho are inherently resilient at low abundance is not supported by the best available science.

b. Habitat

Oregon's conclusion of viability is not based on any findings of adequate habitat. Instead, it found the reverse, namely that "because the ESU is viable, therefore it must currently be supported by a sufficient quantity and quality of habitat." AR 928, Part 1 (Synthesis) at 66. This reasoning, which first appeared in the Draft Assessment, was criticized for being circular. AR 834, IMST Review at 23, 34. In fact, IMST suggested that a more accurate statement could be that "the ESU might be viable, in spite of the fact that the habitat is quite marginal." AR 834 at 23. In response, Oregon clarified that habitat was not a factor in viability: "Oregon is not stating that because sufficient habitat is available to support to ESU, the ESU must therefore be viable. Viability was assessed based on specific fish performance attributes." AR 928, Part I at 9. It did not further identify those "specific fish performance attributes," but they appear to include productivity.

Oddly enough, Oregon also found that "the ESU retains sufficient productivity *and* is supported by *sufficient habitat* to be sustainable through a future period of adverse ocean, drought and flood conditions [similar to the late 1980s and 1990s]." *Id*, Part 2 at 5 (emphasis added). Oregon equates sustainability with viability: "The Coastal coho ESU is *viable*, that is, coho populations generally demonstrate sufficient abundance, productivity, distribution and diversity to be *sustained* under the current and future range of environmental conditions." *Id* (emphasis added). It is illogical for Oregon to claim on the one hand that it reached its ESU

viability finding separately from habitat, yet on the other hand claim that habitat (along with productivity) supports sustainability (*i.e.* viability). Such reasoning suffers from circularity and cannot form a legitimate basis for the conclusion that the ESU is viable.

As a result, the Withdrawal Decision reflects this confusion. Despite Oregon's clarification that its ESU viability conclusion is *not* based on habitat conditions, the Withdrawal Decision reads the Final Assessment as instead stating that factors supporting viability (increased productivity, increased abundance and increased spatial distribution) are due to sufficient habitat:

Oregon reasons that the ESU's demonstrated ability to rebound rapidly from the unfavorable environmental conditions of the 1990s strongly indicates that currently available freshwater *habitats are of sufficient quantity and quality to support increased population productivity, increased population abundance, and increased spatial distribution of populations, and sustain populations through any future downturns in ocean conditions.*

71 Fed Reg 3033, 3039-40 (emphasis added).

In other words, resilience after a few years of poor ocean conditions indicates that the habitat is sufficient for increased productivity, abundance and distribution, thus making the ESU viable in the foreseeable future. The Withdrawal Decision also asserts that Oregon found the ESU was viable in part because "there are sufficient high quality habitats within the ESU to sustain productivity during periods of adverse environmental conditions." 71 Fed Reg 3033, 3036. Neither of these statements is supported by Oregon's own characterization of its Final Assessment.

c. Harvest Regulations and Hatchery Reforms

Another factor identified in the Withdrawal Decision in support of Oregon's conclusion that the ESU is viable is that "current harvest regulations and hatchery reforms adequately address past harmful practices." *Id.*

As recognized by the BRT and the proposed listing, "hatchery closures, reductions in the number of hatchery smolt releases, and improving marking rates of hatchery fish have reduced risks to diversity associated with artificial propagation." 69 Fed Reg 33,102, 33,133. However, Oregon's Final Assessment admitted that "[h]atchery programs were associated with 5 of the 7 populations that did not pass viability criteria [out of 21 total populations], and may have contributed to poor population performance." AR 982, Part 1 at 5. Oregon was hopeful that significant improvements made in hatchery programs for 3 of the 5 populations would lead to positive gains over the next decade. *Id.* In the Withdrawal Decision, NMFS noted its 2004 conclusion that "the specific hatchery programs considered to be part of the Oregon Coast coho ESU collectively do not substantially reduce the extinction risk of the ESU in-total." 71 Fed Reg 3033, 3037.

Discussing the impact of harvest regulations in 2003, the BRT majority found that the drastically improved spawning escapements for 2001 and 2002 were due to "a combination of improved marine survival and *sharply curtailed ocean fisheries*." AR 901 at 324 (emphasis added). However, it warned that "[w]ith all directed harvest for these populations already eliminated, harvest management (i.e. reducing harvest rates) can no longer compensate for declining productivity." *Id.* at 400. "Further harvest reductions can have little effect on spawning escapements" and "[f]uture remedies must be found outside of harvest management

until the decline in productivity is reversed.” *Id* at 331. In other words, harvest regulations have been helpful to remedy past harms but cannot halt long-term declining productivity.

d. The Oregon Plan

The Withdrawal Determination identified one final finding upon which Oregon’s viability conclusion was based: “(5) measures under the Oregon Plan make it unlikely that habitat conditions will be degraded further in the future.”¹⁹ 71 Fed Reg 3033, 3036.

The Oregon Plan is a “framework of state laws, rules, and executive orders designed to enhance and protect watershed health, at-risk species, and water quality by governing forest and agricultural practices, water diversions, wetlands, water quality, and fish and wildlife protections” (Oregon Watershed Enhancement Board, OWEB, 2002). 69 Fed Reg 33,102, 33,151. The State of Oregon concluded that habitat conditions are likely to improve in the future under the Oregon Plan. AR 1681 at 3.

The BRT Report did not assess the Oregon Plan because “[p]rotective efforts are taken into account in a separate process by the NMFS regional offices prior to making listing determinations.” AR 916 at 15. The IMST reviewed Oregon’s Draft Assessment of the Oregon Plan and, while stating that its intent was not to imply that Oregon’s efforts to provide for conservation of coho salmon were inadequate, it also pointed out that “assertions in the Synthesis are, in many cases, not supported by the information presented or do not provide for scenarios where implementation or effectiveness is significantly less than 100% successful.” AR 834 at 35. For example, the IMST criticized Oregon’s assertion that “measurable deterioration

¹⁹ Both hatchery and harvest regulations are part of the Oregon Plan and were considered by Oregon in reaching its viability determination. However, since the Withdrawal Determination lists the harvest and hatchery regulations as a separate basis supporting the finding of viability, this court has treated them separately from the rest of the Oregon Plan.

in habitat has been stopped, if not reversed” as not supported by the habitat report developed for the Oregon Coast coho project. *Id* at 30. The IMST wondered “[w]hat data are available to document that implementation of the Oregon Plan measures, programs, and regulations have occurred and are having the desired effects.” *Id* at 28. If data does not back the optimistic conclusions regarding the current effect of already implemented Oregon Plan measures, all that remains are assumptions about the *future* effect of Oregon Plan *proposed* measures. which cannot be relied upon in an agency’s decision not to list. *See Fed’n of Fly Fishers v. Daley*, 131 F Supp2d 1158, 1163-69 (ND Cal 2000). In August 2005, NMFS’s regional office staff determined that “the provisions of the Oregon Plan are not adequate to address a variety of habitat conditions that pose threats to Oregon Coast coho.” AR 1681 at 1-2 and AR 1681-01.

The Withdrawal Determination noted that “Oregon’s viability conclusion was *not* predicated on a finding that specific conservation measures under the Oregon Plan provide sufficient certainty of implementation and effectiveness to substantially ameliorate risks facing the ESU. Rather, its conclusion was based on past and present biological performance of, and threats facing, the ESU.” 71 Fed Reg 3033, 3036 (emphasis added). This phrase alone suggests that the effectiveness of measures under the Oregon Plan to stop future degradation of habitat did not constitute a factor influencing Oregon’s viability determination. Nonetheless, the Withdrawal Decision listed the Oregon Plan’s effect on habitat (a risk factor) as one of the five findings upon which Oregon’s viability determination rested. *Id* (“(5) measures under the Oregon Plan make it unlikely that habitat conditions will be degraded further in the future.”).

e. Peer Reviews

Defendants respond that neither the NWFSC nor the IMST conducted viability assessments or reached their own independent viability conclusions. However, that is not the point of peer reviews. Instead, they focused on whether Oregon's Draft and Final Assessments had scientific support and were consistent with scientific principles. *See* AR 834 at Cover Letter (IMST has "not taken a position on what the listing status of [Oregon] coastal coho should be under the ESA . . . We have confined our review to matters of scientific rigor, adequacy of evidence to support assertions, and clear logic track from information to conclusions"); AR 1661-01 at 1 (NWFSC is "not making any conclusion about the viability of these populations. We are reviewing the analyses presented in the report and evaluating how well the analyses support the conclusions reached in the report"). It is contrary to the record and the best available science for NMFS to rely on Oregon's viability conclusion in the face of peer review findings that the viability conclusion had insufficient scientific support.²⁰

f. Conclusion

The Final Assessment's conclusion that the ESU is viable is based on findings which were discounted by NWFSC. The assumption that Oregon Coast coho salmon is resilient at low abundance and during poor ocean conditions was based on uncertainty in productivity estimates, potential bias, and discounting the scientific principle that low abundance constitutes an

²⁰ If the NMFS had any doubt about the NWFSC's critique, it could have reconvened the BRT to review such as Oregon's Final Assessment, as well as the TRT's findings, but did not do so. This may or may not have been attributable to time constraints. Oregon's Final Assessment was published on May 13, 2005. AR 928. NWFSC was asked on May 25, 2005, to review Oregon's Final Assessment and completed its review less than three months later, on August 15, 2005. AR 1655-01, 1661-01 at 1. The preliminary TRT findings were made available to the NMFS on August 22, 2005 (AR 923), while the TRT Biological Critique was dated October 5, 2005 (AR 1664-01). The Withdrawal Decision was not published until January 19, 2006. 71 Fed Reg 3033. In light of the Final Assessment and the TRT findings, there may have been sufficient time for the NMFS to solicit feedback from the BRT. Similarly, there was no IMST review of the Final Assessment, although the IMST review of the Draft Assessment was completed on March 18, 2005, merely three months after its feedback was solicited on December 17, 2004. *See* AR 834.

extinction risk. The finding that habitat is sufficient, and therefore supports increased productivity, abundance and spatial distribution, suffers from circularity. The hatchery and harvest efforts have been successful but are not sufficient on their own to support ESU viability during future poor ocean conditions. Last, but not least, Oregon did not rely on the effectiveness of the Oregon Plan in reaching its viability conclusion. Therefore, the Oregon Final Assessment lacks basis for its viability conclusion and does not constitute the best available science.

It is also noteworthy that in response to criticisms that it was difficult to distinguish between fact, opinion, data, and interpretation, the State of Oregon stated that, while it made an effort to note more of the sources of data presented, “the overall intent of the Assessment documents is to communicate - to tell Oregon’s story of the Assessment - rather than to produce a paper for a scientific journal.” AR 928, Part 1 at 4. This is almost tantamount to an admission that the Final Assessment does not constitute the best available science.

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C. NMFS’s Reliance on Oregon’s Final Assessment

NMFS relied on Oregon’s Final Assessment in reaching its Withdrawal Decision, noted “strong support in the scientific literature for abundance being an important determinant of extinction risk” (71 Fed Reg 3033, 3040²¹), and rejected the low abundance paradigm as lacking scientific support and also concluded that Oregon’s productivity thresholds were too risky. Yet, without distinguishing between Oregon’s viability conclusion and the low abundance paradigm,

²¹ NMFS recognized there was insufficient empirical data demonstrating *the specific abundance level* at which stochastic and compensatory demographic processes dominate and which the risk of extinction is expected to increase dramatically. 71 Fed Reg 3033, 3040 (emphasis added).

it nevertheless found “Oregon’s conclusion reasonable” that “the ESU is resilient to a prolonged period of poor ocean conditions,” in light of its analysis and the BRT’s finding that this question was unresolved despite “considerable uncertainty regarding the adequacy of current habitat conditions.” 71 Fed Reg 3033, 3045. And despite “uncertainty, we cannot say that Oregon’s abundance threshold is unreasonable.” *Id* at 3040. In sum, it found that concerns about the low abundance paradigm, habitat, and future ocean conditions “do not invalidate Oregon’s conclusions that the ESU is viable; rather, they underscore that there is considerable uncertainty associated with any extinction risk.” *Id* at 3044.

The problem with this approach is that Oregon’s viability conclusion is based on assumptions plagued by uncertainty, lack of data and potential bias (inherent resilience at low numbers), circularity (habitat findings), or on factors that cannot single-handedly support the conclusion (hatchery and harvest regulations) (plus, according to the Withdrawal Determination, the viability conclusion is *not* based on any success of the Oregon Plan in ameliorating risks to the ESU viability). It is evident that according to the peer review critiques and NMFS’s findings, as well as its own admission, Oregon’s viability conclusion does not represent the best available science, but, as cautioned by the NWFSC, depends “on assumptions about behavior at levels for which there are few or no data.” AR 1661-01 at 2. As such, it cannot form the basis for withdrawing the listing because an agency may not base its listings on speculation or surmise. *Building Indus.*, 247 F3d at 1247 (citation omitted).

D. NMFS’s Reliance on Other Data

Even though Oregon’s Final Assessment does not represent the best available science, the agency’s decision not to list the Oregon Coast coho salmon as “threatened” must be affirmed

if the remaining data reveals a 50-50 chance or less that the Oregon Coast coho salmon will become endangered in the foreseeable future. After removing Oregon's findings and viability conclusion, the other data considered by the NMFS in reaching its decision included the 2003 BRT report, the peer reviews of Oregon Draft Assessment (IMST, NWFSC, NWR), the NWFSC's review of Oregon's Final Assessment, the TRT preliminary reports dated August and October 2005, and the Darm Memorandum (with the NMFS Regional Office review of August 2005, and the staff scientist's trends table). The issue is whether the NMFS "offered an explanation for its decision that runs counter to" this remaining data "or its decision "is so implausible that it could not be ascribed to a difference in view or the product of agency expertise." *O'Keefe's, Inc.*, 92 F3d at 942.

1. 2003 BRT Report

Defendants place great emphasis on the split in the BRT, arguing that the close votes (56% to 44%) allow the NMFS to easily shift from the majority report in the proposed listing to the minority report in the Withdrawal Decision. A shift in position from a proposed listing is not itself evidence of arbitrary action. *Motor Vehicle Mfr. Ass'n*, 463 US at 41-42. While the "agency does not have a burden to explain a change in position from a proposed rule to the final rule," the court must carefully scrutinize the reasons for the agency's decision not to list a species to ensure that they are legitimate and based on the record. *See Northwest Ecosystem Alliance*, 475 F3d at 1145 (citations omitted) (agency may deviate from internal draft finding provided that it considered the relevant factors and articulated a rational connection between the facts found and the choices made); *Fed'n of Fly Fishers*, 131 F Supp2d at 1163-69 (examining

the reasons behind the decision not to list a species of steelhead, and holding that state conservation proposals for future action were an impermissible reason).

The BRT majority believed that the higher recent returns were more likely due to “unusually favorable marine productivity conditions than improvement in freshwater productivity.” AR 901 at 400. They noted that “to have a high degree of confidence that the ESU is healthy, higher spawner escapements should be maintained for a number of years, and the freshwater habitat should demonstrate the capability of supporting high juvenile production from years of high spawner abundance.” *Id.* The BRT majority warned “that if the long-term decline in productivity reflects the deteriorating conditions in freshwater habitat, this ESU could face very serious risks of extirpation during the next cycle of poor ocean conditions.” *Id.*

Explaining its reasons for adopting this view in the proposed listing, NMFS noted that high returns “need to be sustained through additional brood years to resolve remaining uncertainties regarding the ESU’s viability. Additional data demonstrating that the freshwater habitat can support high abundances of natural spawners and sustain recent abundance levels would help resolve uncertainties regarding the ESU’s resilience under less favorable ocean conditions.” 69 Fed Reg 33,102, 33,161. In other words, the proposed listing refused to downplay the need for high functioning freshwater habitat and to deny protection based on higher returns in years with favorable marine survival. It declined to rely on improved ocean conditions because of natural fluctuations, the difficulty in predicting trends, and the fact that climate change may significantly alter historic patterns. *Id.* at 33,114. NMFS noted that because “[t]he confidence with which [it] can project ocean-climate regimes into the future is limited,” so is its “ability to project the future influence of ocean-climate conditions on salmonid

productivity.” *Id.* Recent increases in abundance “in many (perhaps most) cases may be primarily due to unusually favorable conditions in the marine environment rather than more permanent reductions in the factors that have led to the widespread declines in salmonid abundance over the past century.” *Id.* at 33,157. Noting the BRT’s concern that “increases in abundance might be only temporary and could mask a failure to address the underlying factors for decline,” NMFS was uncertain how the ESU would perform in periods of poor marine survival rates when their freshwater, estuary, and nearshore marine habitats are degraded. *Id.* at 33,114.

The Withdrawal Decision contains the same recitation of the BRT’s findings as the proposed listing, with only insignificant word changes. 71 Fed Reg 3033, 3043. It similarly insists that salmon viability depends not on a few spikes in abundance or productivity, but rather on the ESU’s ability to sustain itself over the long term through periods of unfavorable environmental conditions. *Id.* at 3039. Nothing in the Withdrawal Decision suggests that NMFS disavowed the BRT majority’s rationale, yet it changed course and instead adopted the BRT’s minority rationale.

The BRT minority believed “that the recent years of high escapements, closely following years of recruitment failure, demonstrate that populations in this ESU have the resilience to bounce back from years of depressed runs.” AR 901 at 401. This belief that coho are inherently resilient even at low numbers is the same rationale that Oregon tested in its viability assessment. Not surprisingly, the principal reason offered by the Withdrawal Decision offered for embracing the BRT minority report is Oregon’s viability assessment. 71 Fed Reg 3033, 3045 (“Oregon’s assessment . . . is sufficiently robust that it causes us to reconsider our proposed determination

that the ESU is likely to become endangered in the foreseeable future.”). But since Oregon’s viability assessment is fundamentally flawed and lacking in scientific support, as discussed above, it is not a legitimate reason for the NMFS to shift from the BRT majority position to the BRT minority position. Moreover, NMFS cannot both decline to rely on temporary increases in abundance as sufficient proof of viability and also adopt the BRT minority view of inherent resilience which is based on such temporary increases in abundance.

2. Peer Reviews

As noted above, the peer reviews heavily criticized Oregon’s Draft and Final Assessments and cannot be deemed to support the Withdrawal Decision which relied on those viability assessments. In addition, they contain warnings about habitat which the Withdrawal Decision discounted.

In the past, NMFS has assumed that ocean conditions will fluctuate and that salmon populations need to be able to persevere through periods of poor marine survival. Since the agency cannot manage ocean conditions or predict their fluctuations with any confidence, it has focused on those conditions, such as freshwater habitat, that can be affected by human activities. The Withdrawal Decision expresses this view. 71 Fed Reg 3033, 3039. It recognizes that ocean conditions had become unfavorable and that the NWFSC “is relatively confident that the negative biological implications of recent ocean conditions for the Oregon Coast coho ESU may be dramatic over the next few years.” *Id* at 3044. Yet the Withdrawal Determination discounts the NWFSC’s warning explaining that, although the NWFSC “predicts conditions in the *near term* to be negative, it does not offer any projections regarding ocean conditions or implications on Oregon Coast coho in the *foreseeable future*.” *Id* at 3045 (emphasis added). However,

uncertainty as to future ocean projections does not eliminate the need for sufficient quality habitat to withstand prolonged periods of poor ocean conditions.

With regard to *current* habitat conditions, the Withdrawal Determination concluded that “[t]here is considerable uncertainty regarding the adequacy of current habitat conditions.” *Id.* NMFS reached that decision after considering the BRT majority and minority opinions, Oregon’s Final Assessment, the peer reviews, public comments, and comments by NMFS scientists and staff. *Id.* The BRT majority²² noted that current habitat conditions are severely degraded from historical conditions and that “with the current freshwater habitat conditions, the ability of [Oregon Coast] coho to survive another prolonged period of poor marine survival remains in doubt.” *Id.* at 324; AR 1681 at 2.

Opposing the BRT majority was Oregon’s conclusion that “the current condition of coho habitats is sufficient to support viable populations and a viable ESU, as evidenced by the ability of populations that were depressed during unfavorable environmental conditions during the 1990s to rebound once conditions moderated.” *Id.* The NWFSC Habitat Review found that the Draft Assessment’s synthesis reports on habitat were written in a narrative style, as opposed to a scientific format that cited data, so “there is little on which to assess whether the assertions and conclusions in the reports have a scientific basis.” AR 920-02 at 2-3. The NWR Review of the Draft Assessment was equally critical:

[The Oregon Draft Assessment] concludes that because the ESU has been judged to be viable, then the habitat quality and quantity is sufficient to maintain a viable ESU. What information is this conclusion based on? The chapter seems to contradict this conclusion when later in the

²² This statement was not separately made by the BRT majority, but appeared in the main BRT report. AR 901 at 324. However, the Darm Memorandum and the Withdrawal Determination describe this as the view of the BRT majority.

paragraph it identifies a concern about lack of high quality overwintering rearing habitat.

Where is the analysis that demonstrates that the ESU... is supported by sufficient habitat to be sustainable through a future period of adverse ocean, drought and flood conditions similar to or slightly more adverse than the most recent period of poor survival conditions (most of the 1980s and 1990s)? Is this referring to the sensitivity analysis in the viability report? That did not appear to be a comprehensive analysis of habitat quantity needs.

AR 920-01 at 4, 7.

Oregon's Final Assessment was criticized by the NMFS staff review, which noted that the "generally poor condition of habitat and water quality calls into question conclusions that habitat limiting factors have been sufficiently addressed for the fish to survive future downturns in ocean survival. Based on the available information, freshwater habitat remains a risk to the viability of Oregon coastal coho." AR 1681-01 at 5.

Oregon's conclusions about *future* habitat were also heavily criticized. For example, the NWFSC Habitat Review criticized the Oregon Draft Assessment's synthesis reports because "there is little on which to assess whether the assertions and conclusions in the reports have a scientific basis." AR 920-02, NWFSC Habitat Review at 2-3. IMST believed that the Draft Assessment "takes an unduly static view of the Oregon coastal landscape, and would be strengthened by inclusion of more future scenarios that integrate the potential consequences of multiple factors that affect fish populations (including ocean conditions, drought, fires, overall watershed conditions brought about by human population increases and land use change, and stream habitat conditions), and assess what would happen if individual trends detrimental to fish converged." AR 834 at 33-34. NWR also criticized the Draft Assessment:

The following statement occurs repeatedly throughout this report and appears to be a cornerstone of the report's logic path with respect to habitat protection: "Given the viability analysis, the broad based set of environmental protections that have been accruing since 1950, the recent and ongoing restoration work in the ESU, plus recent habitat data, *it is unlikely that any future deterioration in habitat could occur so rapidly that it would jeopardize viability of the ESU before protections could be provided under State management or Federal ESA protection.*" This statement needs to be supported by analysis that demonstrates how long it would take for damage to habitat to be detected, and how long it would take for (1) State or (2) Federal protective measures to be put in place. Also, the analysis should address the risk that habitat will continue to be damaged during the time it takes to develop and put protective measures in place. As is, it is an unsupported assertion.

* * *

The chapter should identify the programs that will improve stream complexity. Even with the assessment's habitat data, Oregon was not able to identify any trend in habitat conditions. Given this situation, *how does Oregon propose to identify deterioration in habitat quickly enough to change management actions?*

AR 920-01 at 1, 3 (emphasis added).

These findings certainly do not support the Withdrawal Decision.

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3. TRT Preliminary Reports

The Withdrawal Decision concluded, without any supporting analysis, that the "TRT's preliminary advice, subject to change upon further testing and review, is not inconsistent with Oregon's viability assessment." 71 Fed Reg 3033, 3044. To the contrary, as noted by the NMFS staff, Oregon's finding that "the ESU is viable under current conditions" is a "[c]onclusion *not* confirmed by TRT's draft review of current viability." AR 1639-02 (emphasis added).

The preliminary results of TRT's viability analysis focused on the recovery of the Oregon Coast coho ESU, but "[m]uch of the development of the TRT's criteria was done in

conjunction with the State of Oregon's efforts to assess the viability of Oregon Coast coho salmon" and TRT "attempted to address comments" on the Oregon assessment by IMST and NWFSC. AR 1664-01 at xv-xvi. The TRT concluded that there is "a high degree of uncertainty with respect to the statement that the ESU is sustainable." AR 923, Cover Letter; Executive Summary at 8; AR 1664-01 at xxv. "Sustainable" is equated with "not threatened:"

Persistence relates to the simple task of extinction, which is the primary determinant of Endangered status under the ESA. *Sustainability* goes beyond this, requiring that population diversity (genetic and ecological) be sustained so that risk of extinction will not increase in the future, *thus relating to Threatened status under the ESA.*

Id at 5 (emphasis added).

In other words, the TRT analysis questions the conclusion that the ESU is not threatened and does not support the Withdrawal Decision.

4. Darm Memorandum

The Darm Memorandum admitted that no disagreement exists among the various reviewers that "coho habitat is degraded from historical conditions." AR 1681 at 2. Nevertheless, after juxtaposing the BRT majority report with Oregon's Final Assessment, it concluded that there are "competing reasonable inferences regarding this issue" and, therefore, could "not conclude that the ESU is likely to become endangered in the foreseeable future because of the 'present destruction, modification, or curtailment of its habitat or range.'" *Id.* The Withdrawal Determination adopted this conclusion. 71 Fed Reg 3033, 3039-40.

However, as discussed above, Oregon's assumption that current habitat must be sufficient to support a viable ESU because the ESU had been viable throughout the last period of poor ocean conditions was heavily criticized by the peer reviews as unsupported. Because it does not

represent the best available science, it cannot create any competing reasonable inference. In essence, NMFS allowed Oregon's conclusion to dictate the outcome of the listing determination by impermissibly raising it to the level of a competing reasonable inference.

The Darm Memorandum also laid out the various positions on *future* habitat conditions which are invariably linked to protective efforts. AR 1681 at 2-5. It noted that the BRT warned that "if the long-term decline in productivity reflects deteriorating conditions in freshwater habitat, this ESU could face serious risks of local extinctions during the next cycle of poor ocean conditions, . . . but without predicting that such declines would occur." *Id* at 2-3. It also noted Oregon's conclusion that "habitat conditions are likely to improve in the future under the Oregon Plan," (*id* at 3), but did not mention that the proposed listing had previously rejected this conclusion. 71 Fed Reg 3033, 3047 (protective efforts "did not substantially alter [NMFS's] finding that the ESU is likely to become an endangered species within the foreseeable future"). The Darm Memorandum rejected the NMFS staff review, which refuted Oregon's conclusion, because "its conclusion implicitly rests on the starting assumption that current conditions are inadequate - it does not address the question presented here of whether habitat conditions are likely to get worse." AR 1681 at 3. It went on to endorse the future habitat trends table prepared by a NMFS biologist which "does not clearly provide an answer, but suggests that some aspects of habitat are likely to improve, some decline, and some remain the same" over the next 10-30 years. *Id.*

In accord with the Darm Memorandum, the Withdrawal Decision concluded that while it could not go as far as Oregon and find that habitat conditions for the ESU would *improve* in the future, a "review of Oregon's final assessment and other available information suggests that

habitat conditions overall are likely *to remain constant* in the foreseeable future, given that there are likely to be improvements in some aspects of habitat condition, declines in others, and a continuation of current conditions in still others.” 71 Fed Reg 3033, 3041 (emphasis added). It added that “we find reasonable Oregon’s conclusion that habitat conditions overall are not likely to worsen. This conclusion is different from the conclusion of the slight majority of the BRT, which relied in part on the uncertainty about the future habitat conditions to support a conclusion that the ESU is likely to become an endangered species.” *Id* at 3045-46.

Thus, even if Oregon’s Final Assessment is disregarded, NMFS was faced with competing scientific evidence with respect to future habitat conditions, namely the view of the BRT majority versus the NMFS habitat trends table. However, it is unclear the extent to which the habitat trends table is based on Oregon’s Final Assessment. Moreover, since remand is necessary to reevaluate the current habitat conditions and viability assessment, those findings will likely influence findings about the future habitat conditions.

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5. Conclusion

In conclusion, as admitted in the Withdrawal Determination, Oregon’s viability assessment constituted the key change that precipitated the NMFS’s shift from the BRT majority to the BRT minority position. Yet Oregon’s viability assessment does not represent the best available science. Moreover, NMFS’s finding of uncertainty whether current habitat conditions are sufficient to support viability is not based on reasonable competing inferences, but is instead based on Oregon’s plagued conclusions. Other developments after the proposed listing, namely the peer reviews and TRT findings, reinforce the Oregon Coast coho ESU’s precarious state.

Since the evidence supporting listing was even stronger in January 2006 when NMFS withdrew the listing than when the proposed listing was issued in June 2004, NMFS had no legitimate reason to abandon its proposed listing of this ESU as threatened.

This is not a situation in which the court should defer to the NMFS's resolution of conflicting scientific evidence. Courts have deferred to the agency when the plaintiffs failed to prove that the agency omitted any scientific evidence or that the agency relied on clearly weaker evidence than the evidence relied upon by plaintiffs. For example, in *Kern County Farm Bureau*, 450 F3d at 1080-81, the plaintiffs faulted the agency for essentially ignoring three post-comment studies in its listing decision by misinterpreting them. To the contrary, the court found that the agency incorporated the data from all three studies in making its final decision, and plaintiffs pointed to no evidence in the record that the agency ignored relevant information. Similarly, in *Building Indus.*, 247 F3d at 1246-47, plaintiffs alleged methodological flaws in a study that supported a listing, but pointed to no data that was omitted from consideration. Likewise, in *Alabama-Tombigbee Rivers Coalition v. Kempthorne*, 477 F3d 1250, 1260 (11th Cir 2007), the court held that the agency did not arbitrarily dismiss relevant scientific data where it relied on the reasonable opinions of its own experts, the only peer-reviewed article published in a specialty journal addressing the issue, and the opinions of most of the academicians asked to comment on the issue, and did not adhere to the contrary view contained in one article published in a statistical journal and in several unpublished reports.

Instead, the situation presented here is more similar to those cases finding that agencies erred in disregarding the best available science and the opinions of their own scientists or scientific advisors. *Resources Ltd., Inc. v. Robertson*, 35 F3d 1300, 1304-05 (9th Cir 1994) (U.S.

Forest Service's own studies raised serious questions about impact of logging levels on grizzly bears); *Ctr. for Biological Diversity*, 296 F Supp2d at 1236-38 (NMFS erred in relying on single orca taxon when BRT, as well as other compelling evidence in the record, found that such classification is inaccurate and outdated); *American Wildlands v. Norton*, 193 F Supp2d 244, 253, *appeal dismissed*, 2002 WL 1925878 (DDC 2002) (it was arbitrary for the agency to include hybrid fish in the population reviewed for protective status when its scientists identified hybridization as single greatest threat); *Friends of the Wild Swan, Inc. v. United States Fish & Wildlife Service*, 12 F Supp2d 1121, 1135 (D Or 1997) (agency ignored its own findings that widespread habitat and migration disruption are factors responsible for the decline of bull trout); *Defenders of Wildlife*, 958 F Supp at 683-85 (decision not to list Canada lynx ignored the agency experts' findings).

This court cannot defer to the NMFS's reliance on Oregon's viability assessment to artificially create competing inferences from the scientific evidence. By feigning an inability to make a listing finding in the face of Oregon's competing conclusions or uncertainties, the NMFS's determination not to list the Oregon Coast coho salmon is arbitrary, capricious, contrary to the best available evidence, and a violation of the ESA.

RECOMMENDATIONS

For the reasons set forth above, Trout Unlimited's Motion for Summary Judgment (docket # 45) should be GRANTED and State of Oregon's Motion for Summary Judgment (docket # 68), Federal Defendants' Amended Motion for Summary Judgment (docket # 77), and Alsea Valley Alliance's Motion for Summary Judgment (docket # 83) should be DENIED. As a

result, the NMFS should be ordered to issue a new final listing rule consistent with the ESA within 60 days of the court's decision.

SCHEDULING ORDER

Objections to the Findings and Recommendation, if any, are due **July 30, 2007**. If objections are filed, then the Findings and Recommendation will be referred to a district judge and go under advisement on that date.

If objections are filed, then a response is due within 10 days after being served with a copy of the objections. When the response is due or filed, whichever date is earlier, the Findings and Recommendation will be referred to a district judge and go under advisement.

DATED this 13th day of July, 2007.

/s/ Janice M. Stewart
Janice M. Stewart
United States Magistrate Judge